

## Maternal medicine network service provision from NHS England: development of an outcome indicator

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### Objectives

NHS England Maternal Medicine Networks (MMN) serve women with new or pre-existing medical problems requiring advice and care before, during, and after pregnancy, to ensure equity of access and care. We describe development of an outcome indicator to evaluate the impact of MMN services using routinely collected hospital data.

### Methods

MMN regional service specifications were harmonised and category B-C medical conditions that matched in all specifications were identified. We created an indicator of modifiable severe morbidity outcomes (MSMOI) as a subset of the English Maternal Morbidity Outcome Indicator (EMMOI). The MSMOI included outcomes that could be caused or worsened by matched conditions, and are considered modifiable with MMN care. MSMOI is presented as a percentage of all outcomes in the EMMOI. Stakeholders and PPI were consulted throughout. We used English hospital admitted patient care data (HES-APC) to create a cohort of all birth episodes from 2013-2022.

### Results

Of the 170 medical conditions where maternal medicine centre support is advised, 71 match across the 17 service specifications (for 16 regions) and were used to create the MSMOI. EMMOI incidence was 3.1% ( $n=181,143/5,824,984$ ), of which 85.3% ( $n=154,586/181,143$ ) was considered modifiable

(MSMOI). The incidence of both EMMOI and MSMOI increased markedly between 2013-2022, from 1.7% to 4.4% and 76.3% to 90.4% respectively ( $p<0.001$ ).

Women  $<20$  or  $>40$  years old (both 3.4%), Black ethnicity (4.6%), or the most deprived (3.3%) have the highest incidence of EMMOI. The highest MSMOI proportion was among under 20-year-olds (90.9%), Asian ethnicity (88.5%), and the most deprived (87.4%). The lowest incidence of EMMOI and MSMOI is in 35-40 years olds (3.0%, 82.4%), White ethnicity (2.9%, 84.3%), and least deprived (2.7%, 81.5%).

### Conclusion

Both EMMOI and MSMOI increased in the years prior to MMN establishment in 2021. This provides baseline data with which to compare future outcomes. Consistency in eligibility criteria is key to continually evaluate MMN outputs and ensure adequate resources are provided to high-risk, expectant mothers.

